

Care and Operation of the S-4 H Blackhawk Service Jack

How To Operate Jack

LIFTING: When control handle is turned right (clockwise) it closes the release valve — in position for raising lifting arm.

IMPORTANT! Before placing jack in service, OPEN the release valve about two turns from the closed position. Pump the handle rapidly six or eight full strokes. This clears any air that may have entered the oil channels due to rough handling in shipping.

How Jack Works

This jack is equipped with combination two speed pump. The SPEED pump quickly raises the lifting saddle to contact load and then AUTOMATICALLY cuts out, permitting POWER pump to continue lift-

Care of Jack

LUBRICATION: All moving parts should be thoroughly oiled or greased frequently to insure easy operation and long life. See illustration below for the vital lubrication points.

TO ADD OIL: Lower the lifting arm until it lies flat. Remove cover plate of oil reservoir. (See illustration). *If oil is dirty, thick, or gummy, remove, clean and refill with fresh oil.* Fill with Blackhawk oil up to—but not above—oil level plate. Excessive oil causes failure of jack due to insufficient air space.

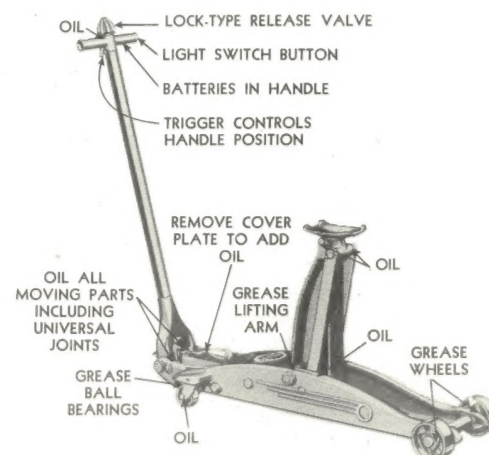
TYPE OF OIL: Use Blackhawk Hydraulic Oil or a light grade of refrigerator or transformer oil. In an emergency (except for cold climates) use SAE No. 10-W Motor Oil.

WARNING: Hydraulic brake or shock absorber fluid, alcohol, glycerine, castor oil, etc. will RUIN this jack because such fluids dissolve sizing which seals the pores in cup leathers, and corrode valve seats and cylinder walls. Use of these fluids waives guarantee!

All Blackhawk Jacks are guaranteed against defects in workmanship and material. In case of such defects, repairs and adjustments will be made on a no charge basis, providing jack or jack parts are returned to one of our authorized service stations or the factory in Milwaukee by prepaid transportation for inspection. Guarantee does not cover jacks worn out in service, damaged through abuse, overloading or accident. This guarantee is VOID if anything but BLACKHAWK HYDRAULIC OIL is used in the jack. Do NOT USE Brake Fluids.

LOWERING: When control handle is turned left (counter-clockwise) it opens the release valve — lowering lifting arm.

Then CLOSE the release valve and operate pump handle until the lifting arm of jack, without load, is raised to its full height. Add about three more pump strokes to insure complete distribution of oil through channels. OPEN release valve and allow lifting arm to drop. Jack is then ready for service.



PARTS PRICES FOR MODEL S-4 H

ITEM NO.	PART NO.	PART NAME	NO. REQ.	USER NET Each
1	S4.05-2	Base	1	21.65
2	1.06-1	Base Plug	2	.02
3	S4.10	Release Valve Spindle	1	1.00
4	S4.11	Release Valve Packing Nut	1	.20
5	S3.13	Release Valve Stop Ring	1	.25
6	1.16	7/32 Ball	1	.01
7	S1.16	5/16 Ball	3	.02
8	S4.18	Oil Strainer Screen	1	.10
9	S4.21-2	Plunger Gland Nut	1	.30
10	S15.319	Oil Level Plate	1	.08
11	S4.299	Frame Cover Clip	2	.01
12	1.26E	Name Plate	1	.08
13	1.27B	Drive Screw	2	.01
14	S15.325	Release Valve Lock Key	2	.10
15	S15.324	Release Valve Lock Cylinder	1	.55
16	S4.40-3	Plunger	1	2.70
17	S4.41-1	Plunger Cup	4	.25
18	S4.43-1	Spreader	1	.15
19	S4.44-2	Plunger Stop Ring	1	1.30
20	S3.45	Saddle	1	2.20
21	S4.46	Saddle Lock Screw	1	.10
22	S4.51-3	Pump Plunger	1	1.80
23	S4.52-2	Inner Pump Cup Spreader	1	.10
24	S4.52A-1	Outer Pump Cup Spreader	1	.15
25	S4.53-1	Inner Pump Cup	5	.15
26	S4.53A	Outer Pump Cup	3	.20
27	S4.54	Plunger Gland Nut	1	.50
28	S4.55-2	Inner pump Cup Retaining Nut	1	.15
29	K18.58	Cotter Pin	2	.01
30	S4.245	Pipe Plug	1	.07
31	S4.61	Pin	1	.02
32	S4.62	Pump Link	1	1.00
33	S4.64	Pump Link Pin	1	.25
34	S4.108B	Front Wheel Washer	2	.03
35	5.75	Release Valve Packing	6	.03
36	S4.75	Pump Packing	2	.06
37	S4.75A	Pump Packing	2	.10
38	S4.76-2	Plunger Packing	4	.15
39	S4.98	Frame Cover	1	1.15
40	S4.101-5	R.H. Side Plate	1	11.00
41	S4.102-5	L.H. Side Plate	1	11.00
42	S4.103-4	Lifting Arm	1	9.50
43	S4.104	Front Wheel Axle	1	1.00
44	S8.105	Axle Lock Pin	2	.04
45	S8.106-1	Front Wheel	2	1.30
46	S4.107	Front Wheel Bearing Roller	4	.01
47	S4.108-1	Front Wheel Bearing Washer	4	.03
48	S1.109	Cotter Pin	2	.01
49	S4.109	Cotter Pin	2	.01
50	S8.111	Saddle Support Bracket	1	1.30
51	S8.112	Saddle Fulcrum Pin	1	.20
52	S4.114-1	Saddle Pivot Pin	1	.30
53	S4.116-1	Parallel Link	2	1.00
54	S1.117	Cotter Pin	1	.01
55	S4.118	Parallel Link Screw	2	.25
56	S1.119	Lock Washer	2	.02
57	S1.120	Hex. Jam Nut	2	.04
58	S4.121-1	Fulcrum Pin	1	1.10
59	S4.122	Lock Washer	2	.02
60	S4.123	Hex. Jam Nut	2	.15
61	S4.124	Frame Tie Rod	1	.55
62	S4.127	Jack Handle Shaft	1	2.00
63	S3.128	Base Bolt	4	.25
64	S4.128	Jack Handle Yoke Bolt	2	.30
65	S1.131	Lock Washer	2	.05
66	S4.133-1	Jack Handle Yoke	1	3.50
67	S4.134-2	Operating Segment	1	2.50
68	S4.135	Jack Handle	1	2.00
69	S4.136-1	Lock Screw	4	.01
70	S4.139-1	Lock Washer	4	.01
71	S4.140	Jack Handle Control Plunger	1	.20
72	S4.141	Jack Handle Control Spring	1	.04
73	S4.142	Jack Handle Control Rod	1	.20
74	S4.143	Jack Handle Control Rod Nut	1	.15
75	S14.144	Jack Handle Control Rod Trig.	1	.10

ITEM NO.	PART NO.	PART NAME	NO. REQ.	USER NET Each
76	S4.145-2	Jack Handle Cross Bar	1	1.95
77	S1.146	Release Valve Cont. Knob Plung.	1	.03
78	S15.147	Release Valve Knob	1	.60
79	S15.148	Release Valve Cont. Knob Fin	1	.02
80	S4.149	Release Valve Control Rod	1	.80
81	S4.150	Oil Strainer Screen Plug	1	.10
82	S4.151	Universal Joint Terminal	1	.30
83	S4.152	Universal Joint Link	1	.40
84	S13.154	Rear Wheel Caster	2	.85
85	S4.155A-1	Rear Wheel Caster Bearing	2	.35
86	S1.159	Lock Screw	1	.03
87	S4.161	Base Cover Screw	1	.04
88	S4.162-3	Base Cover	1	1.30
89	S4.163-3	Pump Plunger Guide	1	.55
90	S4.164	Pump Overflow Valve Spring	1	.02
91	S4.165	Overflow Valve	1	.35
92	S1.167	Oil Screen Plug Gasket	1	.02
93	S1.167B	Valve Plug Gasket	4	.01
94	S4.169-2	Plunger Cross Pin	1	.50
95	S4.170	Pump Plunger Spring	1	.07
96	S4.171	Pump Plunger Spring Nut	1	.15
97	S15.89	Cap Screw	6	.01
98	S13.173	Lock Screw	2	.05
99	S8.174-1	Rear Wheel	2	.45
100	S4.175	Rear Wheel Center Pin	2	.07
101	S4.180	Lock Washer	1	.03
102	S4.181	Hex. Jam Nut	1	.07
103	S4.184-1	Full Spring	2	.20
104	S4.185	Valve Plug	3	.07
105	S4.186-1	Valve Spacer	1	.10
106	S4.187	Pump Packing Spacer	1	.20
107	S4.188-2	Lubrication Fitting	3	.15
108	S8.188	Oiler	1	.45
109	S4.190B	Safety Valve Needle	1	.30
110	S4.190F	Safety Valve Spring	1	.07
111	S4.190G	Safety Valve Body	1	.30
112	S4.190H	Safety Valve Adjusting Plug	1	.06
113	S4.192	Inner Pump Cup Spacer	1	.08
114	S4.190E	Safety Valve Sealing Plug	1	.02
115	S4.202-1	Connecting Link	1	1.75
116	906G-1	Spring	1	.01
117	1502D	Universal Joint Knuckle	2	.20
118	1502E	Universal Joint Pin	5	.01
119	S15.141	Light Switch Spring	1	.03
120	S13.11B	Packing Nut Washer	2	.01
121	S4.186F	Valve Spacer	2	.04
122	S15.320	Release Valve Rod Driver	1	.07
123	S15.321	Release Valve Lock Dog	1	.07
124	S15.322	Release Valve Lock Dog Spring	1	.02
125	S5.252	Release Valve Stop Ring Screw	1	.01
126	S4.254	Lens	1	.25
127	S4.369	Light Switch Button	1	.15
128	S4.370	Light Switch Button Bushing	1	.06
129	S4.371	Light Switch Button Retainer	1	.20
130	S4.375	Terminal Contact Spring	1	.02
131	S4.376	Jack Lamp	1	.20
132	S4.377	Jack Battery	2	.15
133	S13.390A	Jack Light Wire Assembly	1	.50
136	1.03	Drive Screw	2	.01
ASSEMBLIES				
	S4.10A	Release Valve Assembly (Items 3, 83, 111 & 118)		1.75
	S4.149C	Release Valve Control Rod Assembly. (Items 80, 82, 117 & 118)		1.55
	S4.186G	Valve Spacer Assembly (Items 104 and 121)		.29
	S4.190-1	Safety Valve Assembly (Items 105, 109, 110, 111, 112 & 114)		.85

NOTE: ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

The name of your nearest authorized BLACKHAWK Service Station where repair parts and complete overhauling may be procured, is given below.



When ordering repair parts give PART NUMBER, PART NAME, MODEL NUMBER, SERIAL NUMBER, and QUANTITY DESIRED.

BLACKHAWK MFG. CO. . . MILWAUKEE 1, WIS.

BLACKHAWK

4 TON MODEL—S-4 H SERVICE JACK

